PAGE 212 * RCVD AT 12/9/2003 5:35:03 PM [Eastern 5/2014] * SVR:USPTO-EFXRF-210 * DNIS:7465018 * CSID:7465018 * DURATION (mm-55):01-08

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This listing of claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS:

1. (Currently amended)

An epothilone compound of formula I.



in which

R⁴ means hydrogen, C₁-C₁₀ alkyl, aryl, C₇-C₂₀ aralkyl,

R means hydrogen, C₁-C₁₀ alkyl, aryl, C₇-C₂₀ aralkyl.

wherein, for R⁴ and R⁵, aryl is phenyl, naphthyl, furyl, thienyl, pyridyl, pyrazolyl, pyrimidinyl, exazolyl, pyridazinyl, pyrazinyl, quinolyl, thiazolyl, which are optionally substituted in one or more places by halogen, OH, O-alkyl, CO₂H, CO₂-alkyl, -NH₂, -NO₂, -N₃, -CN, C₁-C₂₀ alkyl, C₁-C₂₀ acyl and/or C₁-C₂₀ acyloxy groups, and wherein ring heteroatoms can be exidized, and

wherein, for R⁴ and R⁵, aralkyl is benzyl, phenylethyl, naphthylmethyl, naphthylethyl, furylmethyl, thionylethyl, or pyridylpropyl, which are optionally substituted in one or more places by halogen, OH, O-alkyl, CO₂H, CO₂-alkyl, -NO₂, -N₂, -CN, C₁-C₂₀ alkyl, C₁-C₂₀ acyl and/or C₁-C₂₀ acyloxy groups

PAGE 112 * RCVD AT 12/912003 5:36:14 PM [Eastern 52.36:14 PM [Eastern 52.36:14 PM [Eastern 52.36:14 PM] * SVR:USPTO-EFXRF-200 * DMIS:7465018 * CSID:736:10 * DURATION (mm-ss):00-52

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R⁶. R⁷ each mean a hydrogen atom, or together mean an additional bond to result in a double bond on the ring between their two positions or together mean an oxygen atom to provide an epoxide ring,

R⁸ means a methyl group or hydrogen.

and at the same time. R^{1a} and R^{1b} together stand for a trimcthylene group, R² stands for a phenyl or benzyl radical, and X stands for a 2-pyridyl, 2-methyl-4-thiazolyl or 2-methyl-4-oxazolyl radical or

at the same time R¹² and R¹⁶ together stand for a trimethylene group, R² stands for a methyl, ethyl or propyl group and X stands for a 2-pyridyl, 2-methyl-4-thiazolyl or 2-methyl-4-oxazolyl radical or

at the same time R^{1a} and R^{1b} in each case stand for a methyl group, R^2 stands for a methyl, ethyl or propyl radical, and X stands for a 2-pyridyl, 2-methyl-4-thiazolyl or 2-methyl-4-oxazolyl radical,

whereby the nitrogen atom and/or the sulfur atom in X can be present in oxidized form, and whereby, if R^2 and R^8 in each case mean a methyl radical, X can be only one 2-pyridyl radical that is optionally oxidized on the nitrogen atom, including all possible stereoisomers.

- 2. (Previously presented) Λ compound according to claim 1, in which R^8 is a hydrogen atom.
- 3. (Previously presented) A compound according to claim 1, in which R⁸ is a methyl group.

5CH-1814

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4. (Previously presented) A compound according to claim 1, in which R^2 is an ethyl group.

5. (Previously presented) A compound according to claim 1, in which R² is a propyl group.

- 6. (Previously presented) A compound according to claim 2, in which R¹² and R^{1b} together mean a trimethylene group.
- 7. (Previously presented) A compound according to claim 3, in which R^{1a} and R^{1b} together mean a trimethylene group.
- 8. (Previously presented) A compound according to claim 6, in which X means a 2-pyridyl radical that is oxidized on the nitrogen atom.
- 9. (Previously presented) A compound according to claim 7, in which X means a 2-pyridyl radical that is oxidized on the nitrogen atom.
- 10. (Previously presented) A compound according to claim 2, in which X means a 2-pyridyl radical that is optionally oxidized on the nitrogen atom.

PACE 111 * RCVD AT 12/12/2003 2:46:03 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-2M * DNIS:7465018 * CSID:7037575410 * DURATION (mm-ss):00-50

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- 11. (Previously presented) A compound according to claim 4, in which R^{1a} and R^{1b} together mean a trimethylene group.
- 12. (Previously presented) A compound according to claim 5, in which R¹² and R¹⁶ together mean a trimethylene group.
- 13. (Previously presented) A compound according to claim 11, in which X means a 2-pyridyl radical that is optionally oxidized on the nitrogen atom.
- 14. (Previously presented) A compound according to claim 12. in which X means a 2-pyridyl radical that is optionally oxidized on the nitrogen atom.
- 15. (Previously presented) A compound according to claim 2, in which R^2 means an ethyl group, R^{1a} and R^{1b} together mean a trimethylene group and X means a 2-pyridyl radical that is optionally oxidized on the nitrogen atom
- 16. (Previously presented) A compound according to claim 2, in which R² means a propyl group, R^{1a} and R^{1h} together mean a trimethylene group, and X means a 2-pyridyl radical that is optionally exidized on the nitrogen atom.
- 17. (Previously presented) A compound according to claim 10, in which R² is a propyl group.

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18. (Previously presented) A compound according to claim 1, in which R⁵ is a methyl group.

19. (Previously presented) A compound according to claim 1, in which R^{1a} and R^{1b} in each case stand for a methyl group and R² stands for a methyl or propyl group.

20. (Previously presented) A compound of formula 1, of claim 1, which is:

(4S.7R.8S.9S.13(E or Z).16S(E))-4.8-Dihydroxy-16-(2-(2-methyl-4thiazolyl)ethenyl)-1-oxa-5.5,7,9,13-pentamethyl-cyclohexadec-13-ene-2,6-dione.

(1(S or R),3S(E),7S,10R,11S,12S,16R)-7,11-Dihydroxy-3-(2-(2-methyl-4-

thiazolyl)ethenyl)-8.8,10,12,16-pentamethyl-4,17-dioxabicyclo[14.1.0]heptadeca-5,9-dione.

(1(R or S),3S(E),7S.10R,11S.12S.16S)-7.11-Dihydroxy-3-(2-(2-methyl-4-

thiazolyl)ethonyl)-8.8.10.12.16-pontamethyl-4.17-dioxabicyclo[14.1.0]heptadeca-5.9-dione.

(4S,7R,8S,9S,13(E or Z),16S(E))-4,8-Dihydroxy-7-ethyl-16-(2-(2-methyl-4-

thiazolyl)ethenyl)-1-oxa-5.5.9,13-tctramethyl-cyclohexadec-13-enc-2.6-dionc,

(1(S or R).3S(E).7S.10R.11S.12S.16R)-7,11-Dihydroxy-10-ethyl-3-(2-(2-methyl-4-

 $thia \verb|roly||) ctheny|) - 8.8.12, 16 - tetramethyl - 4.17 - dioxabicyclo[14.1.0] heptadcca - 5.9 - dione.$

(1(R or S).3S(E),7S,10R,11S,12S,16S)-7,11-Dihydroxy-10-ethyl-3-(2-(2-methyl-4-

thiazolyl)ethenyl)-8,8,12.16-tetramethyl-4,17-dioxabicyclo[14.1.0]heptadeca-5,9-dione.

(45.7R.85.9S.13(E or Z).16S(E))-4.8-Dihydroxy-16-(1-methyl-2-(2-pyridyl)ethonyl)-

1-oxa-5,5-(1.3-trimethylene)-7.9.13-trimethyl-cyclohcxadec-13-ene-2,6-dione.

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(1(S or R).3S(E).7S.10R.11S.12S.16R)-7.11-Dihydroxy-3-(1-methyl-2-(2-

pyridyl)chcnyl)-8.8-(1.3-trimethylene)-10.12,16-trimethyl-4.17-

dioxabicyclo[14.1.0]heptadeca-5.9-dionc.

(1(R or \$).3\$(E),7\$.10R,11\$,12\$.16\$)-7.11-Dihydroxy-3-(1-mcthyl-2-(2-

pyridyl)cthcnyl)-8.8-(1.3-trimethylene)-10.12.16-trimethyl-4,17-

dioxabicyclo[14.1.0]heptadeca-5,9-dione.

(4S,7R,8S,9S.13(E or Z),16S(E))-4,8-Dihydroxy-16-(2-(2-methyl-4-thiazolyl)cthonyl)-1-oxa-5,5-(1,3-trimethylene)-7,9,13-trimethyl-cyclohexadec-13-ene-2,6-dione.

(1(S or R).3S(E).7S.10R.11S.12S.16R)-7.11-Dihydroxy-3-(2-(2-methyl-4-thiazolyl)ethenyl)-8.8-(1.3-trimethylene)-10.12.16-trimethyl-4.17-

dioxabicyclo[14.1.0]heptadeca-5,9-dione,

(1(R or S).3S(E).7S.10R.11S.12S.16S)-7,11-Dihydroxy-3-(2-(2-methyl-4-thiazolyl)ethenyl)-8.8-(1.3-trimethylene)-10.12.16-trimethyl-4,17-dioxabicyclo[14.1.0]heptadeca-5,9-dione,

(4S.7R.8S.9S.13(E or Z).16S(E))-4.8-Dihydroxy-16-(2-(2-pyridyl)ethcnyl)-1-oxa-5.5.7.9.13-pentamethyl-cyclohexadec-13-enc-2.6-dione.

(1(S or R).3S(E).7S.10R.11S.12S.16R)-7.11-Dihydroxy-3-(2-(2-pyridyl)ethenyl)-8.8.10.12.10-pcntamethyl-4,17-dioxabicyclo[14.10]heptadeca-5,9-dione.

(1(R or S).3S(E).7S.10R.11S.12S.16S)-7,11-Dihydroxy-3-(2-(2-pyridyl)ethenyl)-

8.8.10.12.16-pentamethyl-4,17-dioxabicyclo[14.1 0]heptadeca-5,9-dione.

(4S.7R.8S.9S.13(E or Z).16S(E))-4.8-Dihydroxy-7-ethyl-16-(1-methyl-2-(2-pyridyl)ethenyl)-1-oxa-5.5-(1.3-trimethylene)-9.13-dimethyl-cyclohexadec-13-ene-2,6-dione,

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(1(S or R).3S(E).7S.10R.11S.12S.16R)-7.11-Dihydroxy-10-ethyl-3-(1-methyl-2-(2nyridyl)ethenyl)-8.8-(1,3-trimethylenc)-12.16-dimethyl-4.17-dioxabicyclo[14.1.0]hcptadeca-5.9-dione.

(1(R or 5).35(E),7S.10R.11S.12S.16S)-7.11-Dihydroxy-10-ethyl-3-(1-methyl-2-(2pyridy/jethenyl)-8.8-(1,3-trimethylenc)-12,16-dimethyl-4,17-dioxabicyclo[14.1.0]heptadeca-5.9-dione.

(4S.7R.8S,9S.13(E or Z),16S(E))-4.8-Dihydroxy-7-ethyl-16-(2-(2-methyl-4thiazolyl)cthenyl)-1-oxa-5,5-(1.3-trimethylcne)-9,13-dimethyl-cyclohexadec-13-ene-2,6dione.

(1(S or R),3S(E),7S,10R,11S,12S,16R)-7,11-Dihydroxy-10-ethyl-3-(2-(2-methyl-4thiazolyl)ethenyl)-8.8-(1.3-trimcthylene)-12,16-dimethyl-4.17dioxabicyclo[14.1.0]heptadeca-5,9-dione,

(1(R or S),3S(E),7S.10R.11S,12S,16S)-7.11-Dihydroxy-10-ethyl-3-(2-(2-methyl-4thiazolyl)cthenyl)-8,8-(1,3-trimcthylene)-12,16-dimethyl-4,17dioxabicyclo[14.1.0]hcptadeca-5.9-dione.

(4S.7R.8S.9S.13(E or Z).16S(E))-4,8-Dihydroxy-7-cthyl-16-(2-(2-pyridyl)ethenyl)-1oxa-5,5,9,13-tetramethyl-cyclohcxadec-13-cne-2,6-dione.

(1(S or R),3S(E),7S,10R.11S.12S.16R)-7.11-Dihydroxy-10-ethyl-3-(2-(2pyridyl)cthenyl)-8.8,12,16-tctramethyl-4,17-dioxabicyclo[14.1.0]heptadeca-5,9-dione.

(1(R or S),3S(E),7S,10R,L1S.12S,16S)-7,11-Dihydroxy-10-ethyl-3-(2-(2pyridyl)cthenyl)-8.8.12.16-tetramethyl-4.17-dioxabicyclo[14.1.0]heptadeca-5.9-dione,

(45.7R,8S,9S,13(E or Z).16S(E))-4,8-Dihydroxy-7-ethyl-16-(2-(2-pyridyl)ethenyl)-1oxa-5,5-(1,3-trimethylcne)-9,13-dimethyl-cyclohexadec-13-cne-2,6-dione,

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(1(S or R),3S(E),7S,10R,11S,12S,16R)-7,11-Dihydroxy-10-ethyl-3-(2-(2-pyridyl)ethenyl)-8,8-(1,3-trimethylene)-12,16-dimethyl-4,17-dioxabicyclo[14,1.0]heptadeca-5,9-dione.

(1(R or S).3S(E),7S.10R,11S.12S.16S)-7,11-Dihydroxy-10-ethyl-3-(2-(2-pyridyl)ethenyl)-8.8-(1.3-trimethylene)-12,16-dimethyl-4,17-dioxabicyclo[14.1.0]heptadcca-5,9-dione,

(4S,7R,8S.9S,13Z,16S(E))-4,8-Dihydroxy-16-(1-methyl-2-(2-pyridyl)ethenyl)-1-oxa-7-propyl-5,5,9,13-tetramethyl-cyclohexadec-13-cne-2,6-dione.

(1S.3S(E).7S.10R.11S.12S.16R)-10-Propyl-7.11-dihydroxy-3-(1-methyl-2-(2-N-oxidopyridyb)ethonyl)-8.8.12.16-tetramethyl-4.17-dioxabicyclo[14.1.0]heptadeca-5.9-dione.

(1R.3S(E).7S.10R.11S.12S.16S)-10-Propyl-7.11-dihydroxy-3-(1-mcthyl-2-(2-N-oxidopyridyl)ethenyl)-8.8.12,16-tetramethyl-4.17-dioxabicyclo[14.1.0]heptadeca-5,9-dione,

(15,35(E),75,10R,115.125,16R)-10-Propyl-7,11-dihydroxy-3-(1-methyl-2-(2-

pyridyl)ethenyl)-8.8.12.16-tetramethyl-4,17-dioxabicyclo[14.1.0]heptadeca-5,9-dione.

(1R.3S(E),7S.10R.11S.12S,16S)-10-Propyl-7,11-dihydroxy-3-(1-methyl-2-(2-

pyridy|)ethcnyl)-8,8,12,16-tetramethyl-4.17-dioxabicyclo[14.1 0]heptadecane-5,9-dione,

(4S.7R.8S.9S.13E.16S(E))-4.8-Dihydroxy-16-(1-methyl-2-(2-pyridyl)cthenyl)-1-oxa-7-propyl-5.5,9.13-tetramethyl-cyclohexadec-13-ene-2.6-dione.

(1R.3S(E).7S.10R.11S.12S.16R)-10-Propyl-7.11-dihydroxy-3-(1-methyl-2-(2-N-oxidepyridyt)ethenyl)-8.8.12.16-tetramethyl-4.17-dioxabicyclo[14.1.0]heptadeca-5.9-dione,

(1S.35(E).75,10R.11S.12S.16S)-10-Propyl-7.11-dihydroxy-3-(1-methyl-2-(2-N-oxidofyridyl)ethenyl)-8,8.12.16-tetramethyl-4,17-dioxabicyclo[14.1.0]heptadeca-5,9-dione,

(1R.3S(E),7S.10R.11S.12S.16R)-10-Propyl-7.11-dihydroxy-3-(1-methyl-2-(2-pyridyl)ethenyl)-8.8.12.16-tetramethyl-4.17-dioxabicyclo]14 1.0]heptadeca-5.9-dione, or

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(1S,3S(E),7S,10R,11S,12S,16S)-10-Propyl-7,11-dihydroxy-3-(1-methyl-2-(2-pyridyl)cthenyl)-8,8,12,16-tctramethyl-4,17-dioxabicyclo[14,1.0]heptadcca-5,9-dione.

ON ON

21. (Previously presented) A pharmaceutical composition comprising at least one compound of formula I according to claim 1 above as well as a pharmaceutically compatible vehicle.

22. (Canceled)

28. (Previously presented) A method for preparing a pharmaceutical agent which comprises formulating a compound of formula I according to claim 1 in a form suitable for pharmaceutical administration.